CETIC
Centre of Excellence in Information and Communication Technologies

Agenda

- About CETIC
- Expertise
- Application domains
- Services
- R&D

About CETIC

Mission

Supporting regional economic development

Through the development of a strong expertise in ICT

cetic
www.cetic.be

By helping companies to integrate ICT technologies faster and more easily in their products, services and processes…

Positioning

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APPLIED RESEARCH	FEASIBILITY STUDIES	PROOF-OF-CONCEPT	TECHNOLOGY TRANSFER

Accredited Research Centre

- Non-profit organisation

- Significant self-funding
  - Max 50% of direct funding by Regional authorities
    - Only for R&D projects

- A majority of Industry members in the board

- Focused on a specific industry (ICT)
  - In line with the needs of the regional actors
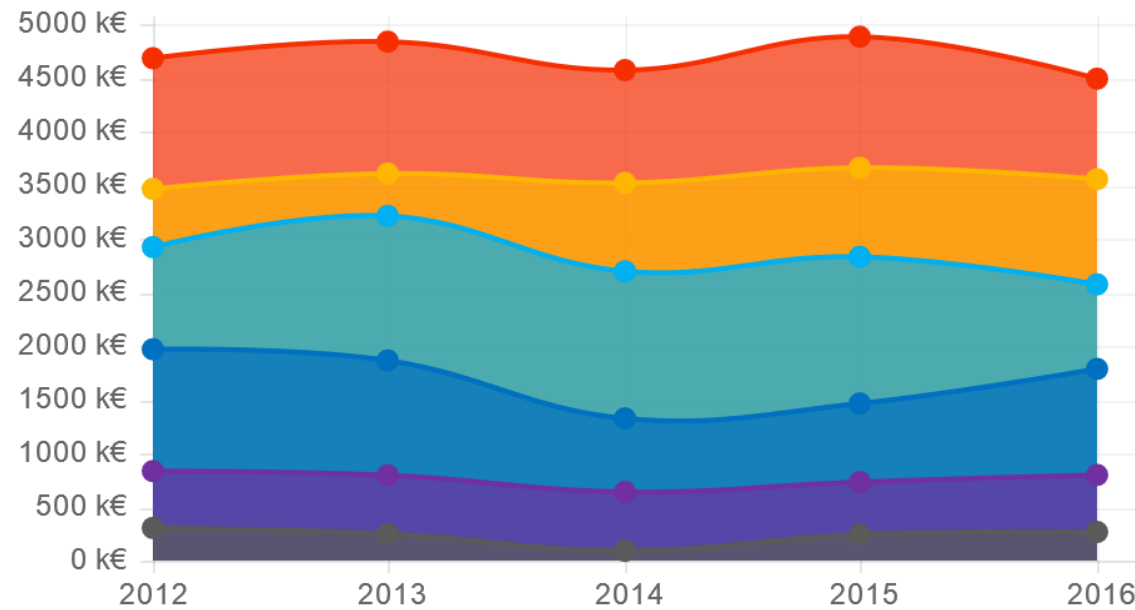
- Dissemination of research results

History

- Founded in 2001 by 3 universities

- Located on the Aeropole in Charleroi

- Support from European Regional Development Fund (ERDF)

- Accreditation: Applied Research Centre by the Walloon authorities

- International Development – European Research Area

Key Figures

SOURCES OF REVENUE

2016:

Revenus : 4.490 k€

21% Technology transfer
22% European framework programs
18% Wallonia
22% ERDF
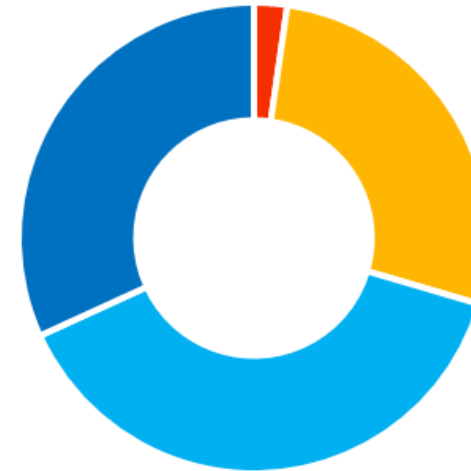12% Fédéral
6% Other

2015

Composition - Human Resources

Education

44 people

6 Bachelor
27 Master/ Engineers
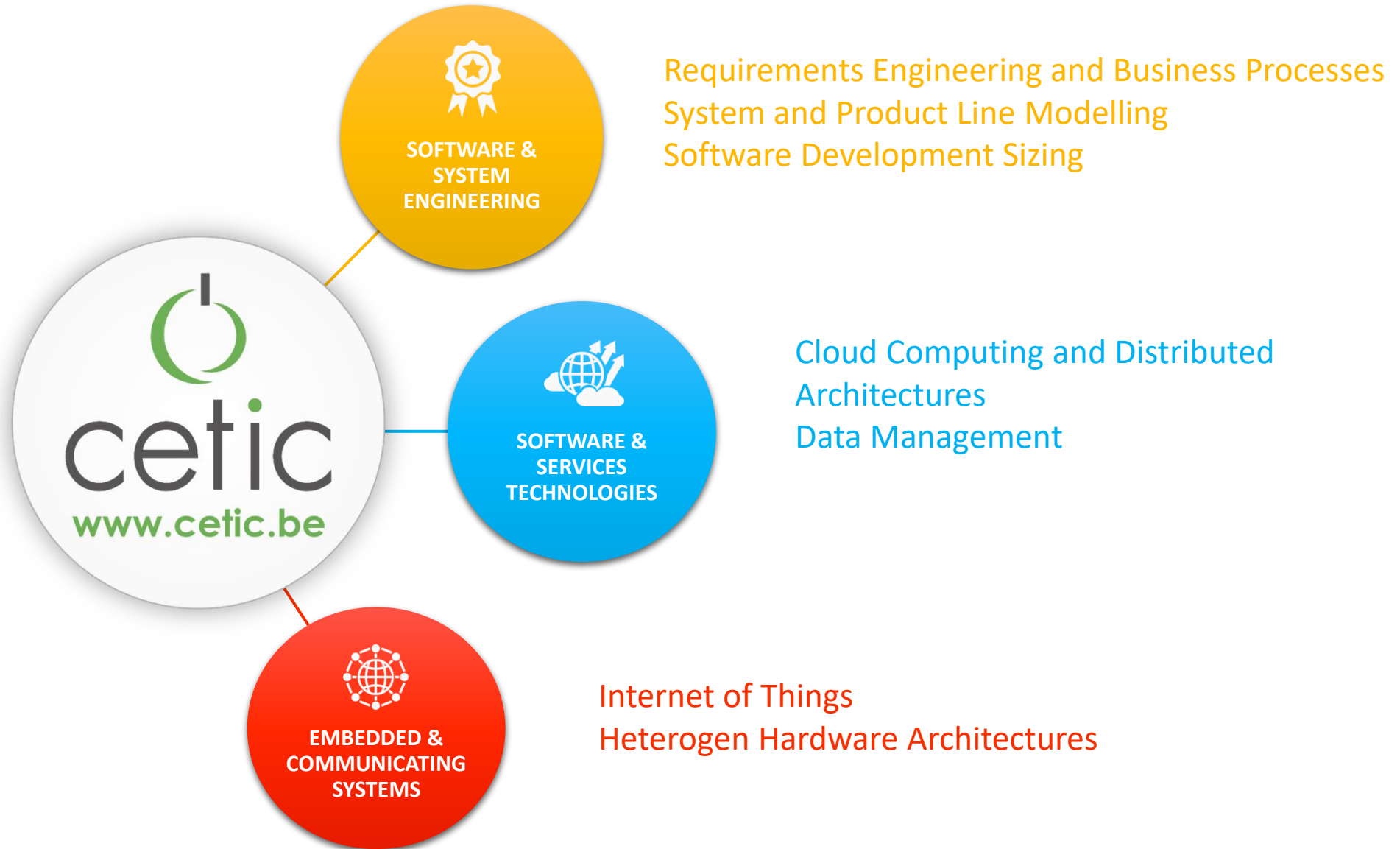12 PhD

AGE

44 people

1: < 25
12: 25 - 34
17: 35 - 44
14: 45 - 54
0: > = 55

2015

Composition - Board of Administrators

Expertise / Application domains

Expertises

SOFTWARE & SYSTEM ENGINEERING

Requirements Engineering and Business Processes
System and Product Line Modelling
Software Development Sizing

SOFTWARE & SERVICES TECHNOLOGIES

Cloud Computing and Distributed Architectures
Data Management

EMBEDDED & COMMUNICATING SYSTEMS

Internet of Things
Heterogen Hardware Architectures

SOFTWARE & SYSTEM ENGINEERING

Assist companies in designing high-quality products and services

in terms of reliability, security, maintainability and other important properties in the fields of application

in accordance with international standards

by providing them with methodological support The entire life cycle

Software & System Engineering

- Software Engineering and Modeling
  - Requirements Engineering and Business Processes
  - System and Product Line Modelling
  - Software Development Sizing

- Software Design and Optimisation
  - Safety and reliability
  - Computer Security and Trust
  - Software Design and Optimisation
  - Software Design and Optimisation

- Software Development Lifecycle
  - Process Quality
  - Software Code Quality
  - Usability

SOFTWARE & SYSTEM ENGINEERING

SOFTWARE & SERVICES TECHNOLOGIES

Help companies exploit emerging technologies to design distributed systems

based on new IT architectures capable of adapting to the load

leveraging automation technologies for managing IT environments

applying management methods and tools of data

Future Internet

- Cloud Computing and Distributed Architectures
  - Cloud Infrastructure Management
  - Distributed systems
  - Programmable Web

- Data Management
  - Big Data Storage
  - Big Data Programming Frameworks

- Open Innovation
  - Open Source
  - Open data
  - Digital and co-creation (Cf Living Labs & Creative Hub)

CLOUD COMPUTING

BIG DATA

SOFTWARE & SERVICES TECHNOLOGIES

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Your Connection to ICT Research

EMBEDDED & COMMUNICATING SYSTEMS

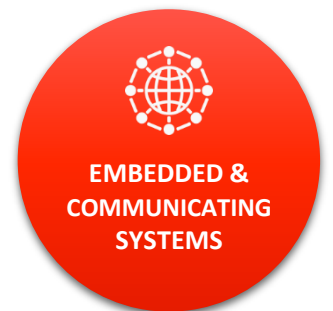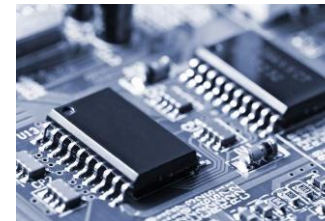**Helping companies leverage emerging technologies to design embedded systems**

with more built-in intelligence

by establishing connectivity that is optimized to the context of use

by leveraging the capabilities of complex hardware architectures when designing smart objects

Internet of Things

- Internet of Things
  - Objets intelligents
  - Réseaux

- Heterogen Hardware Architectures
  - Advanced architectures
  - Hardware Design
  - Programmable Logic

EMBEDDED & COMMUNICATING SYSTEMS

Application domains

Use of software

Software products and services

Software embedded inside products

Digital value added services

Today's Automobile
100 million lines of software code
Proliferation of software-embedded components
A significant maintenance challenge

Software

METHODS, LANGUAGES, GENERIC TECHNOLOGIES, SOFTWARE COMPONENTS…

ICT

OTHER SECTOR-SPECIFIC ICT INNOVATIONS

Manufacturing

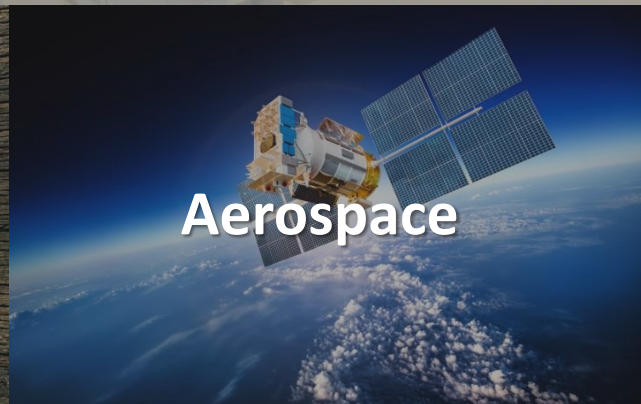Healthcare

Transport & Logistics

Media

Telecommunications

Energy

Aerospace

Working with CETIC

How to work with CETIC

Research project

- Collaborative

- Mid term

- Technological risk

- Subsidy (partial)

- Shared intellectual property

Service

- Custom

- Short term

- Innovation / strategic need

- Paid by the company

- Intellectual property transferred

- TECHNOLOGICAL GUIDANCE
- SUPPORT TO INNOVATION PROCESS
- TECHNICAL AUDITS

Services

Key Figures

SOURCES OF REVENUE

Revenus : 4.490 k€

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18% Wallonia
22% ERDF
12% Fédéral
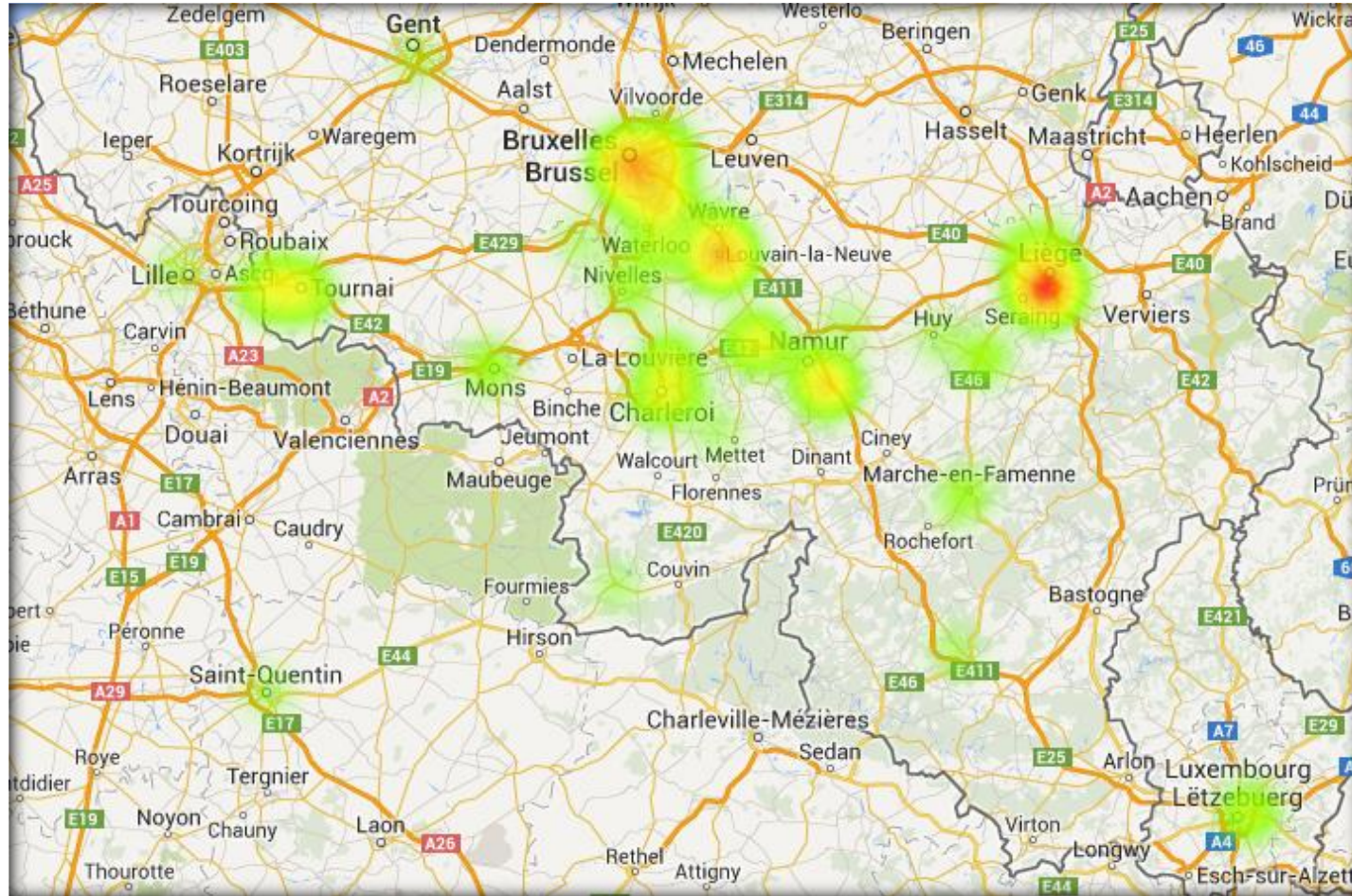6% Other

TECHNOLOGY TRANSFER

Volume of activity:

69% SME
26% GE
6% Public / Non-profit

2016

Companies working with CETIC

Geography

Services aux entreprises

R&D

Key Figures – R&D Projects

PARTNERSHIPS

119 partnerships,
With 103 different entities:

21 Wallonia/Business
19 Wallonia/Research
11 Wallonia/Other
25 Europe/Business
36 Europe/Research
6 Europe/Other

2016

Key Figures – R&D Projects

SOURCES OF REVENUE

SOURCE OF FUNDING

APPLICATION DOMAIN

Revenues : 4.490 k€

21% Technology transfer
22% European framework programs
18% Wallonia
22% Convergence ERDF
12% Federal
6% Other

24 R&D projects :

4 Structural funds in Wallonia
5 Competitiveness clusters
4 Walloon programs
2 International programs
8 European Framework Programs
1 Other

24 R&D projects :

10 Software industry
3 Transport & logistics
3 Health
2 Manufacturing
3 Energy
3 Digital and co-creation

2016

Technology Readiness Level

SYSTEM TEST, LAUNCH & OPERATIONS

TRL 9

TRL 8

SYSTEM / SUBSYSTEM DEVELOPMENT

TRL 7

TRL 6

TECHNOLOGY DEMONSTRATION

TRL5

TECHNOLOGY DEVELOPMENT

TRL 4

TRL3

RESEARCH TO PROVE FEASIBILITY

TRL 2

BASIC TECHNOLOGY RESEARCH

TRL 1

MARKET

INDUSTRIAL RESEARCH

FUNDAMENTAL RESEARCH
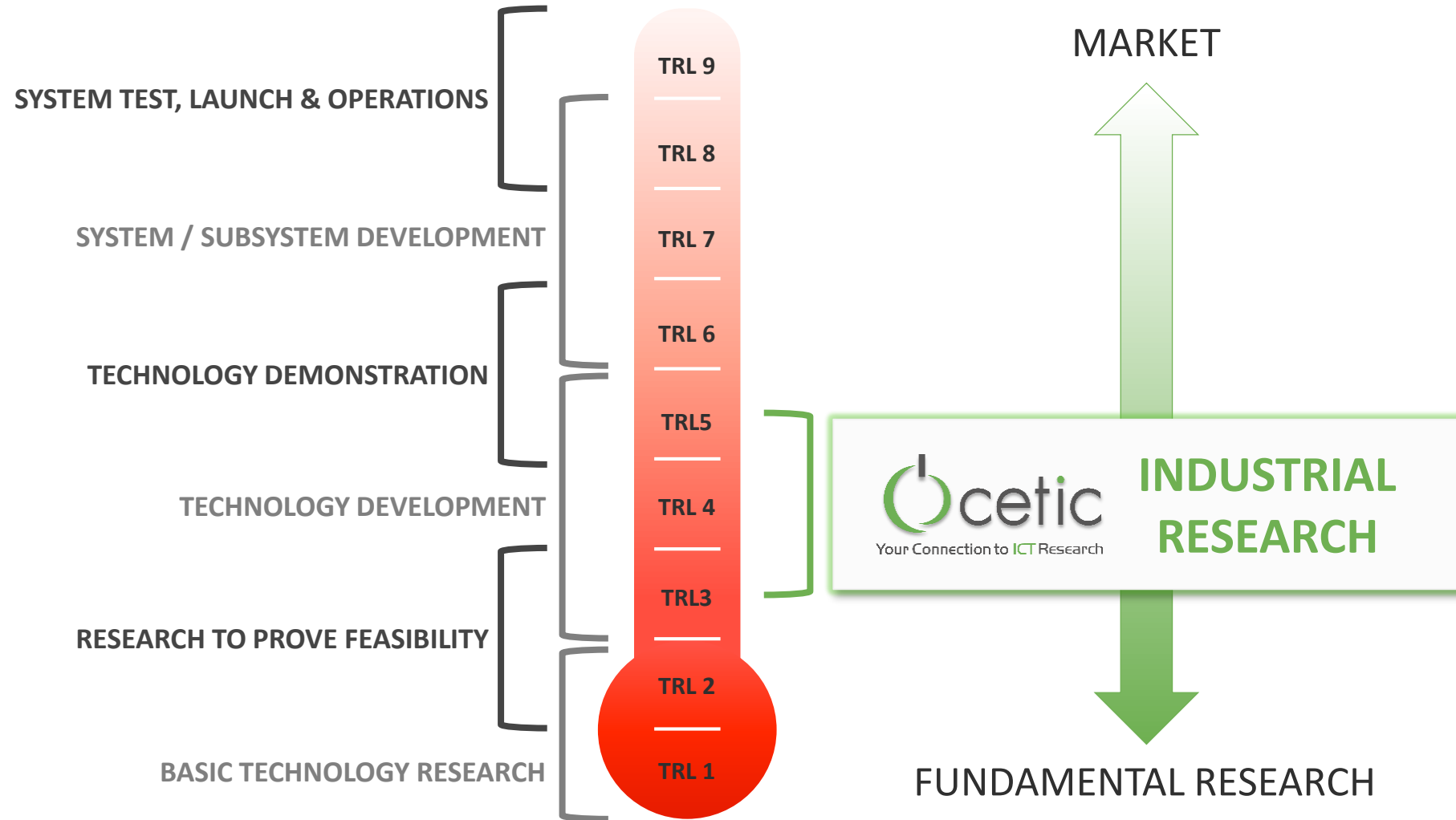
Involvement in European programmes

H2020
BEACON *
TANGO

FP7
PaaSage
POLCA
Evidence
Redirnet
Ascetic
Bonfire
RESERVOIR
Deploy-IP
PONTE *
S-Cube

Other EU projects
Numericanal (Interreg)
NWERide (Interreg)
I2MSTEEL (RFCS)
ComodIT (Era-Net)
SPES (Central Europe)
AMACS (Era-Net)
Dapcare (Era-Net)
Extra (Cornet)
C2A (Interreg)

FP6
Oldes
BEinGRID
CoreGRID
EverGrow
QualOSS *
GridTrust *
AssessGrid
HPC4U

* Coordinator

Conclusion

CONTEXT
- Created in 2001
- Accredited Research Centre
- ~45 researcher in 3 departments

MISSION
- Applied Research at EU and Regional level
- Technology Transfert Agent to (inter-) Regional Industry

SERVING INDUSTRY
- SotA/Techno Evaluation and Coaching (HW/SW)
- Trusted Third Party
- Connect Industry to latest research results

INTERNATIONAL INVOLVEMENT
- EU: Coordinator and Participants
- EraNets and Interreg
- Regional Research project

REGIONAL FUNDING FOR CONTRACT RESEARCH
- Technological Checks
- Feasibility Studies
- R&D 1-1 Projects

Going further…

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